

AMENDMENT

In the claims:

Please cancel claims 47-51, 65-68, 71, 73 and 77 without prejudice and without disclaimer.

Please amend claims 40, 43-46, 52-62, 69, 70, 72, 74-76 and 78 so that the text of the amended claims read as follows:

C1
Sub D8

40. (Twice Amended) A method for binding a transforming growth factor β (TGF- β) protein in a sample, comprising contacting said sample with a purified mammalian LTBP-3 protein or polypeptide under conditions effective to allow binding of said LTBP-3 protein or polypeptide to said TGF- β protein; wherein said LTBP-3 protein or polypeptide specifically binds to TGF- β 1 and exhibits at least 90% identity to the amino acid sequence of SEQ ID NO:4.

C2

43. (Amended) The method of claim 40, wherein said sample is located within an animal and said LTBP-3 protein or polypeptide is administered to said animal in an amount effective to bind TGF- β in said animal.

Sub D9

44. (Amended) A method of binding TGF- β , comprising contacting a composition comprising TGF- β with a composition comprising a purified mammalian LTBP-3 protein or polypeptide in an amount effective to bind TGF- β ; wherein said LTBP-3 protein or polypeptide specifically binds to TGF- β 1 and exhibits at least 90% identity to the amino acid sequence of SEQ ID NO:4.

C2 45. (Amended) The method of claim 44, wherein said composition comprising TGF- β is located within an animal and said composition comprising said LTBP-3 protein or polypeptide is administered to said animal in an amount effective to bind TGF- β in said animal.

46. (Amended) A method of binding TGF- β , comprising providing to an animal a composition comprising a purified mammalian LTBP-3 protein or polypeptide in an amount effective to bind TGF- β in said animal, wherein said LTBP-3 protein or polypeptide specifically binds to TGF- β 1 and exhibits at least 90% identity to the amino acid sequence of SEQ ID NO:4.

C3 52. (Amended) The method of claim 46, wherein LTBP-3 binding to TGF- β regulates TGF- β activity in said animal.

53. (Amended) The method of claim 46, wherein LTBP-3 binding to TGF- β modulates the activation of TGF- β in said animal.

Sub D10 54. (Amended) The method of claim 46, wherein LTBP-3 binding to TGF- β modulates the activation of latent complexes that comprise TGF- β , thereby regulating TGF- β activity.

55. (Amended) The method of claim 46, wherein LTBP-3 binding to TGF- β targets TGF- β to the extracellular matrix in said animal.

56. (Amended) The method of claim 46, wherein LTBP-3 binding to TGF- β targets TGF- β to the bone matrix in said animal.

C3 57. (Amended) The method of claim 46, wherein LTBP-3 binding to TGF- β targets TGF- β to connective tissues in said animal.

58. (Amended) The method of claim 46, wherein LTBP-3 binding to TGF- β targets TGF- β to the cell surface of cells in said animal.

59. (Amended) The method of claim 46, wherein LTBP-3 binding to TGF- β protects TGF- β from proteolytic attack and activation in said animal.

60. (Amended) The method of claim 46, wherein LTBP-3 binding to TGF- β protects TGF- β from proteolytic attack and activation during wound repair or tissue healing in said animal.

61. (Amended) The method of claim 46, wherein said LTBP-3 protein or polypeptide is a recombinant protein or polypeptide prepared by expressing an LTBP-3-encoding DNA segment in a recombinant host cell and purifying the expressed LTBP-3 protein or polypeptide away from total recombinant host cell components.

62. (Amended) The method of claim 46, wherein said TGF- β is located within a tissue healing, wound repair tissue site or bone progenitor tissue site of said animal and wherein said LTBP-3 protein or polypeptide is provided to said tissue site.

C4

69. (Amended) The method of claim 46, wherein said LTBP-3 protein or polypeptide comprises at least about thirty contiguous amino acids present in SEQ ID NO:4.

70. (Amended) The method of claim 46, wherein said LTBP-3 protein or polypeptide comprises at least about fifty contiguous amino acids present in SEQ ID NO:4.

C5

72. (Amended) The method of claim 46, wherein said LTBP-3 protein or polypeptide exhibits between 91% and about 99% identity to the amino acid sequence set forth in SEQ ID NO:4.

C6

74. (Amended) The method of claim 46, wherein said LTBP-3 protein or polypeptide comprises the amino acid sequence of SEQ ID NO:4.

See
D13

75. (Amended) A method of binding TGF- β within an extracellular matrix or connective tissue site of an animal, comprising contacting said tissue site with a purified mammalian LTBP-3 protein or polypeptide in an amount effective to bind TGF- β in said animal; wherein said LTBP-3 protein or polypeptide specifically binds to TGF- β 1 and exhibits at least 90% identity to the amino acid sequence of SEQ ID NO:4.

76. (Amended) A method of binding TGF- β within a repair or bone progenitor tissue site of an animal, comprising contacting said tissue site with a purified mammalian LTBP-3 protein or polypeptide in an amount effective to bind TGF- β in said animal; wherein said LTBP-3 protein

C6 or polypeptide specifically binds to TGF- β 1 and exhibits at least 90% identity to the amino acid sequence of SEQ ID NO:4.

C7 78. (Amended) A method of binding TGF- β , comprising administering to an animal a composition comprising a purified mammalian LTBP-3 protein or polypeptide in an amount effective to bind TGF- β in said animal; wherein said LTBP-3 protein or polypeptide binds TGF- β and comprises at least fifteen contiguous amino acids present in SEQ ID NO:4 and exhibits at least 90% identity to the amino acid sequence set forth in SEQ ID NO:4.

Sub D14
Add D15
RESPONSE

I. Restriction Requirement

The Requirement took the position that the 37 pending claims were directed to 34 allegedly distinct inventions under 35 U.S.C. § 121. The groupings were set forth in the Requirement.

Although no particular reasoning was provided, the Requirement took the position that each of the 34 groups were independent and distinct from each other because each invention "performs different functions, using different starting materials and/or process steps and/or with different outcomes" (Requirement at page 11).

The Requirement also took the position that each of the inventions "have acquired a separate status in the art as shown by their different classification". It was further alleged that "the searches required are not coextensive" and that the inventions have "recognized divergent subject matter" (Requirement at page 12).

II. Applicants' Interview Summary

After studying the Requirement, Applicants believed that the 34-way restriction was improper. Applicants' representative, Shelley Fussey, therefore telephoned Examiner Romeo to discuss matters further. A number of telephone exchanges and discussions were held between October 10, 2001 and November 08, 2001, including a detailed telephone interview held November 08, 2001.

Applicants very much appreciate the time invested by Examiner Romeo in the telephone interviews, during which agreement was reached to regroup the claims into 6 distinct inventions, rather than the 34 inventions initially set forth. It was agreed that Applicants would summarize the new groupings and make an election therefrom in their written response. The present document therefore implements the agreement reached.

III. Re-Grouping and Election

According to the agreement reached in the telephone interview of November 08, 2001, the claims have been regrouped as follows:

- Group I: Claims 40, 43-45, 46 (in part), 51-64, 69-73, 75, 76 (in part) and 77, drawn to methods of binding TGF- β using an LTBP-2 protein or polypeptide (former Groups I, III, V, IX, XI, XIII, XV, XVII, XIX, XXI, XXIII, XXV, XXVII, XXIX and XXXI);
- Group II: Claims 40, 43-45, 46 (in part), 51-64, 69-72, 74, 75, 76 (in part), 77 and 78, drawn to methods of binding TGF- β using an LTBP-3 protein or polypeptide (former Groups II, IV, VI, X, XII, XIV, XVI, XVIII, XX, XXII, XXIV, XXVI, XXVIII, XXX and XXXII);
- Group III: Claims 46 (in part) and 47-50, drawn to methods of immunization using an LTBP-2 protein or polypeptide (former Group VII);
- Group IV: Claims 46 (in part) and 47-50, drawn to methods of immunization using an LTBP-3 protein or polypeptide (former Group VIII);
- Group V: Claims 65-68 and 76 (in part), drawn to methods of binding TGF- β using a nucleic acid segment that expresses an LTBP-2 protein or polypeptide (former Group XXXIII); and

Group VI: Claims 65-68 and 76 (in part), drawn to methods of binding TGF- β using a nucleic acid segment that expresses an LTBP-3 protein or polypeptide (former Group XXXIV).

Based upon the agreed groups set forth above, Applicants elect unified Group II, drawn to methods of binding TGF- β using an LTBP-3 protein or polypeptide. Unified Group II corresponds to each of former Groups II, IV, VI, X, XII, XIV, XVI, XVIII, XX, XXII, XXIV, XXVI, XXVIII, XXX and XXXII. The election of unified Group II is made without traverse as to the new groups.

Claims directed solely to the non-elected inventions have been canceled. Claims encompassing certain non-elected inventions, in part, have been amended to read only on the elected invention.

Applicants reserve the right to pursue claims directed to the non-elected inventions in one or more divisional or other applications claiming priority to the present and earlier priority applications.

IV. Provisional Election from Original Grouping

Although agreement regarding the foregoing regrouping was reached during the telephone interviews, as a precaution, Applicants also propose a provisional election from the original 34 groups. Should the original 34 groups be maintained in whole or part, Applicants provisionally elect Group II with traverse.

V. Status of the Claims

Prior to the present paper, claims 40 and 43-78 were pending. Presently, claims 47-51, 65-68, 71, 73 and 77 have been canceled without prejudice. Claims 40, 43-46, 52-62, 69, 70, 72,

74-76 and 78 have been amended to read only on the elected invention and to more clearly define certain preferred embodiments of the invention. No claims have been added.

Claims 40, 43-46, 52-64, 69, 70, 72, 74-76 and 78 are therefore pending in the case. According to 37 C.F.R. § 1.121, and for the convenience of the Examiner, a clean copy of the pending claims is included (**Exhibit A**), along with a copy of the pending claims showing the present revisions (**Exhibit B**). The claims in each are marked "(Amended)", where appropriate.

VI. Support for the Claims

Support for the revised claims is to be found throughout the original claims and the specification as filed. No additional fees should be due.

Claim 40 has been revised to read only on methods using an LTBP-3 protein or polypeptide, rather than encompassing LTBP-2 in the alternative, which change is supported by claim 40 itself. The LTBP-3 protein or polypeptide is defined as specifically binding to TGF- β 1 and as exhibiting at least 90% identity to the amino acid sequence of SEQ ID NO:4. This is supported by former claims 71, 72 and 78 in the present application, and by claims 18 and 19 in the patent issued from the parent application.

Dependent claim 43 has been revised to read only on methods using an LTBP-3 protein or polypeptide, rather than encompassing LTBP-2 in the alternative, which change is supported by the claim itself.

Likewise, claim 44 has been revised to read only on methods using an LTBP-3 protein or polypeptide, which is also defined as specifically binding to TGF- β 1 and as exhibiting at least 90% identity to the amino acid sequence of SEQ ID NO:4, the support for which is as described above. Claim 45 has been revised to read only on methods using an LTBP-3 protein or polypeptide, rather than encompassing LTBP-2.

Independent claim 46 has been revised to recite a method of binding TGF- β comprising providing to an animal a composition comprising a purified mammalian LTBP-3 protein or polypeptide in an amount effective to bind TGF- β . This has support in original claims 46 and 51 in this case. The definition of the LTBP-3 protein or polypeptide has been revised as described above.

Each of claims 52-62 have been revised to depend from claim 46 and to recite only LTBP-3, rather than encompassing LTBP-2.

Claims 69, 70 and 72 have also been revised to depend from claim 46 and to refer only to LTBP-3 sequences from SEQ ID NO:4, rather than encompassing LTBP-2 sequences from SEQ ID NO:2.

Dependent claim 74 still recites the administration of an LTBP-3 protein or polypeptide that comprises the amino acid sequence of SEQ ID NO:4, but now depends from claim 46.

Claims 75, 76 and 78 provide alternative independent claims, each of which concern the provision of only LTBP-3, which is again defined as specifically binding to TGF- β 1 and as exhibiting at least 90% identity to the amino acid sequence of SEQ ID NO:4. Claim 78 additionally requires at least fifteen contiguous amino acids from SEQ ID NO:4. The revised claims have support in the original counterpart claims, and in former claims 71 and 72.

It will therefore be understood that no new matter is included within any of the new claims.

VII. Conclusion

This is a complete response to the referenced Restriction Requirement, as modified by the telephone interviews documented herein. The response is timely in light of the enclosed petition for extension of time and appropriate fee. Should any other fees under 37 C.F.R. §§ 1.16 to 1.21

be deemed necessary, such fees should be deducted from Applicants' representatives' Deposit Account No. 50-0786/4100.000582. Should Examiner Romeo have any questions or comments, a telephone call to the undersigned Applicants' representative is earnestly solicited.

Respectfully submitted,



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Date: February 21, 2002